

Applicant respectfully requests re-examination of the claims in light of the amendments and arguments as set forth below.

IN THE CLAIMS

Please cancel claims 17-23.

Please amend the claims as follows:

1. (AMENDED) A power amplifier comprising:

a single circuit board having a plurality of subcircuits, including a gain subcircuit, thereon;

the circuit board comprising multiple conductive layers including a first signal distribution layer, a second ground plane layer and a third signal distribution layer embedded in the circuit board, the second ground plane layer disposed between the first and third signal distribution layers;

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a chassis body and a lid structure for coupling with the chassis body to contain the circuit board;

at least one wall extending from the lid structure and surrounding a subcircuit to electrically isolate the subcircuit from other subcircuits on the circuit board.

2. (AMENDED) The power amplifier of claim 1 wherein the gain subcircuit is a high power gain subcircuit, the at least one wall surrounding the high power gain subcircuit.

6. (AMENDED)The power amplifier of claim 1 wherein the multiple conductive layers are separated by dielectric layers, the first conductive layer being coupled to components of the subcircuits and the second conductive layer defining a ground plane.

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7. (AMENDED)The power amplifier of claim 1 wherein the third signal distribution layer is separated from the second ground plane layer by a dielectric layer and is configured for distributing signals across the circuit board and between subcircuit components.

8. (AMENDED)The power amplifier of claim 1 further comprising a fourth conductive layer separated from the third signal distribution layer by a dielectric layer and defining a ground plane.

9. (AMENDED) The power amplifier of claim 1 wherein said first signal distribution layer includes at least one controlled impedance circuit, the second ground plane layer completing the controlled impedance circuit.

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24. (AMENDED) A power amplifier comprising:

a multiple-layer circuit board having a plurality of subcircuits, including a gain subcircuit, thereon;

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the circuit board comprising multiple conductive layers including a first signal distribution layer, a second ground plane layer and a third signal distribution layer embedded in the circuit board, the second ground plane layer disposed between the first and third signal distribution layers;

a chassis body and a lid structure for coupling with the chassis body to contain the circuit board, the circuit board ground plane layer being coupled to the chassis body;

a plurality of plated vias extending through the circuit board to electrically carry signal and ground between the layers, some of the plurality of vias forming a ground isolation path positioned between at least two subcircuits;

at least one wall extending from the lid structure and coupled to the ground isolation path to electrically isolate the subcircuit from other subcircuits on the circuit board.

25. (AMENDED) The power amplifier of claim 24 wherein the multiple conductive layers are separated by dielectric layers, the first conductive layer being coupled to components of the subcircuits and the second conductive layer defining a ground plane.

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28. (AMENDED) A power amplifier comprising:

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a single circuit board having a power supply subcircuit and a high power gain subcircuit thereon;

the circuit board comprising multiple signal distribution layers with at least one signal distribution layer embedded in the circuit board and a ground plane layer disposed between the signal distribution layers;

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a chassis body and a lid structure for coupling with the chassis body to contain the circuit board;

at least one wall extending from the lid structure and disposed between the power supply and high power gain subcircuits to electrically isolate those subcircuits.

33. (AMENDED) The power amplifier of claim 28 wherein the multiple layers are separated by dielectric layers, the signal distribution layers being coupled to components of the subcircuits and the ground plane layer defining a ground plane.

35. (AMENDED) A method of isolating subcircuits of a power amplifier comprising:

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positioning a plurality of subcircuits, including a gain subcircuit, on a single circuit board;

distributing signals in the subcircuits through multiple conductive signal distribution layers wherein at least one of the signal distribution layers is embedded in the circuit board;

providing a ground plane layer between the multiple conductive signal distribution layers;

mounting the circuit board in a chassis body;

positioning a lid structure having walls extending therefrom over the circuit board such that the walls surround at least one subcircuit and electrically isolate it from another subcircuit.

41. (AMENDED) A method of isolating subcircuits of a power amplifier comprising:

positioning a plurality of subcircuits, including a gain subcircuit, on a single circuit board;

distributing signals in the subcircuits through multiple conductive signal distribution layers wherein at least one of the signal distribution layers is embedded in the circuit board;

providing a ground plane layer between the multiple conductive signal distribution layers;

mounting the circuit board in a chassis body;

positioning a lid structure having a wall extending therefrom over the circuit board such that the wall surrounds at least one subcircuit and electrically isolates it from another subcircuit;